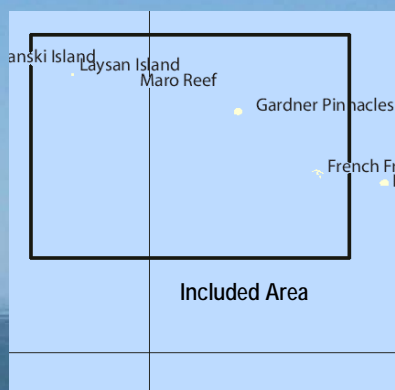


BookletChart™

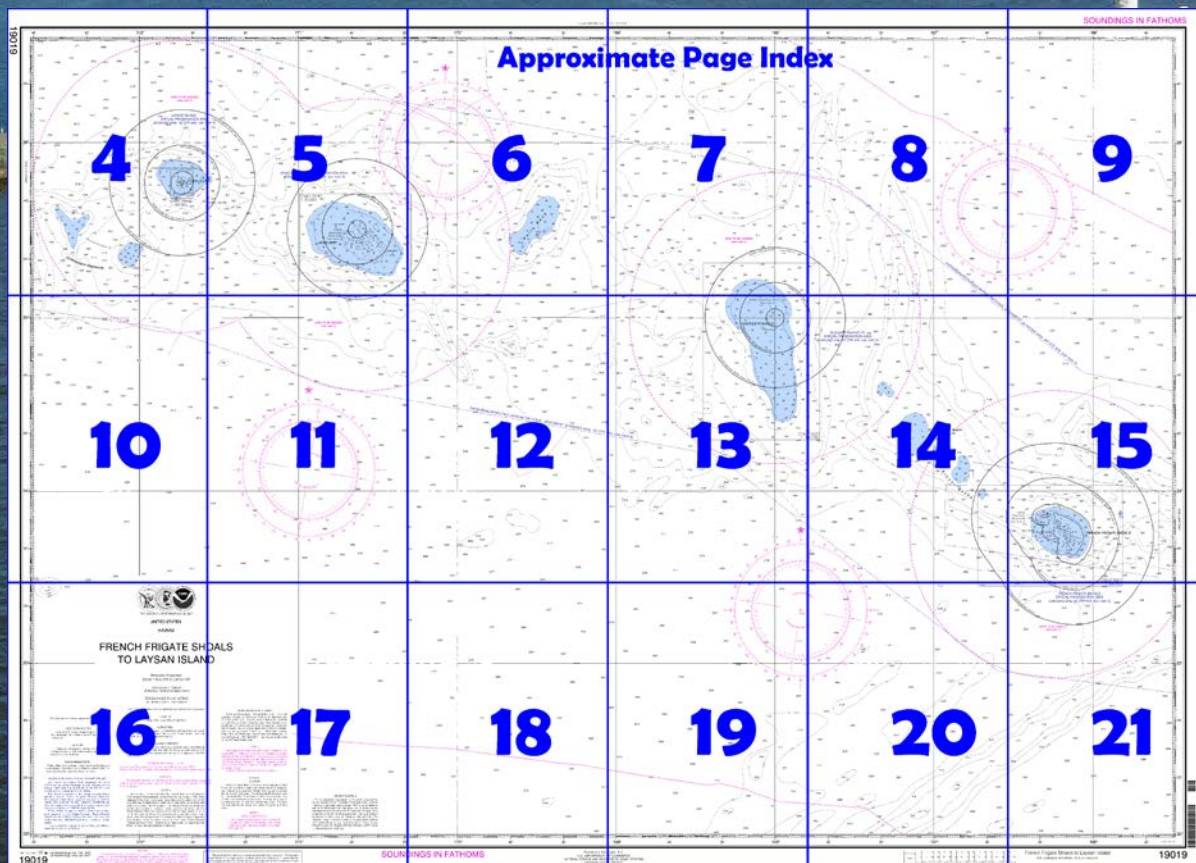
French Frigate Shoals to Laysan Island **NOAA Chart 19019**



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

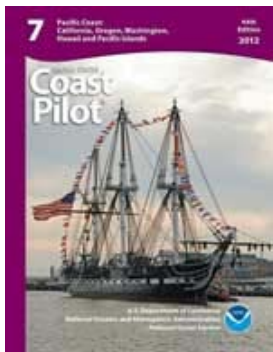
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=19019>.



(Selected Excerpts from Coast Pilot)

Brooks Banks and St. Rogatien Bank are a group of five coral banks between French Frigate Shoals and Gardner Pinnacles. The banks extend 50 miles in a NW direction, have depths of 11 to 59 fathoms, and are separated by channels several miles wide and more than 100 fathoms deep. The largest of these banks lies 60 miles 305° from La Perouse Pinnacle, is about 12 miles in diameter, and has depths of 12 to 56 fathoms. The southeasternmost bank,

the smallest in the group, is 27 miles 297° from La Perouse Pinnacle, is about 2 miles in diameter, and has depths of 28 fathoms. The north-westernmost bank is 75 miles 311° from La Perouse Pinnacle, is about

6 miles long and 4 miles wide.

Unprotected anchorage can be had on the shoaler areas, but the holding ground is only fair. The sand and coral bottom is plainly visible. There are no known dangers.

Raita Bank (25°32'N., 169°28'W.), is about 85 miles 291° from Gardner Pinnacles. It was discovered in 1921 by the French schooner RAITA. The bank is about 20 miles long in a NNE direction and has a maximum width of about 10 miles. Depths range from 9 to 20 fathoms, and the sand and coral bottom is plainly visible under ordinary weather conditions. At the 20-fathom curve, the bottom drops off rapidly to great depths. In heavy weather, the swells seem to lump up slightly over the shoaler areas, but there are no known dangers. Large schools of ulua fish and sharks have been observed on the bank. Anchorage can be had on the bank in the open sea with fair holding ground.

Laysan Island (25°46'N., 171°44'W.) is a low sand island about 65 miles WNW of Maro Reef. The island is 1.6 miles long in a N-S direction, about 1 mile wide, and 35 feet in elevation at its highest point near the N end. In the center of the island is an extremely hypersaline, foul-smelling lake about 0.9 mile long. The island, mostly soft white sand, is partly covered with low vines and grass, and walking over it is tiring because of innumerable sea-bird nesting holes. The island is marked by an ironwood tree behind a wooden refuge warning sign on the W side of the island, and by a grove of coconut palms on the N edge of the lake. The rock which bares about 3 feet, located on the reef NW of the island presents a good radar target in mild weather. The wreck of a steel fishing boat is on the S shore of the island in 25°45.4'N., 171°44.4'W., but does not present a good radar target. Water can be obtained by digging shallow wells. The island is uninhabited and is seldom visited. As with other islands in the Leeward Islands, an entry permit is required. It is home to countless sea birds. Millions of flies make a visit there unpleasant most of the year.

A coral reef, a few hundred yards wide, fringes the island. About 0.3 mile off the NW shore is a small, sharp rock, about 3 feet high. Coral heads, covered with 4 to 7 fathoms of water, are numerous in the area within 1 mile of the island. The sand and coral bottom can usually be seen in depths less than 10 fathoms, and often in greater depths. When approaching closer than 1 mile, a sharp lookout must be maintained to detect the coral heads.

Vessels can anchor in depths of 8 to 15 fathoms 1 to 1.5 miles off the island on all sides, depending upon which side affords the best protection. During the trades, anchorage can be had 0.5 to 1 mile off the W side in depths of 8 to 15 fathoms, fair holding ground. In 1976, the Coast Guard Cutter MALLOW found good anchorage in 45 feet of water, sand and coral bottom, in 25°46'22"N., 171°45'15"W., with the ironwood tree bearing 084°, 1,390 yards. However, the anchor chain is subject to fouling on the coral heads because of the rotary currents. The coral heads are large and present a problem to vessels as they can foul ground tackle. It may be advisable to remain underway while attempting to land a small boat. Small craft drawing not over 12 feet can lie at anchor inside the reef and off the ironwood tree on the W side of the island, but this anchorage affords no protection from W winds. In 1978, the NOAA Ship TOWNSEND CROMWELL found anchorage with good holding ground, sand and coral bottom.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Honolulu	Commander	
	14th CG District	(808) 535-3333
	Honolulu, HI	

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

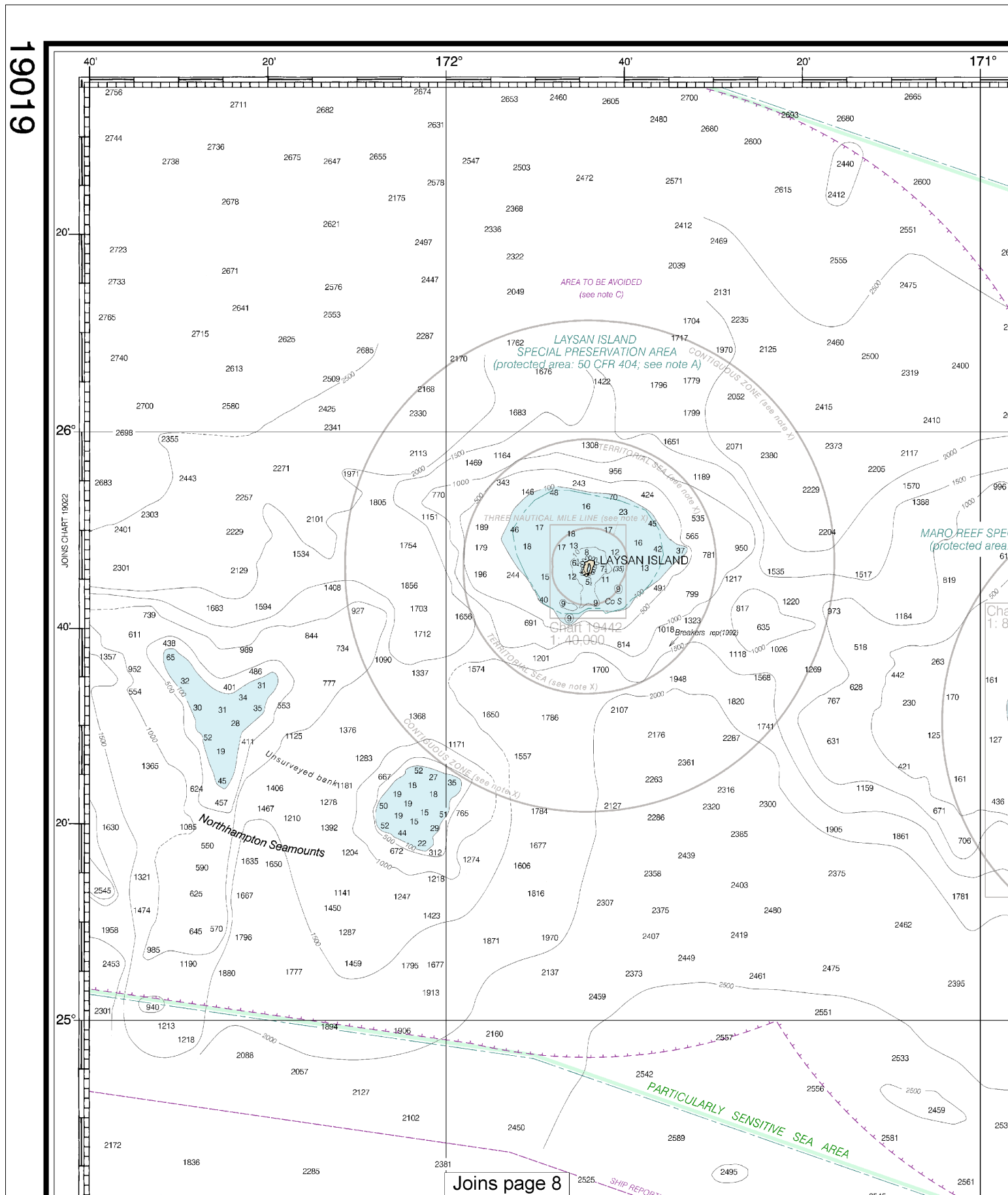
Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers

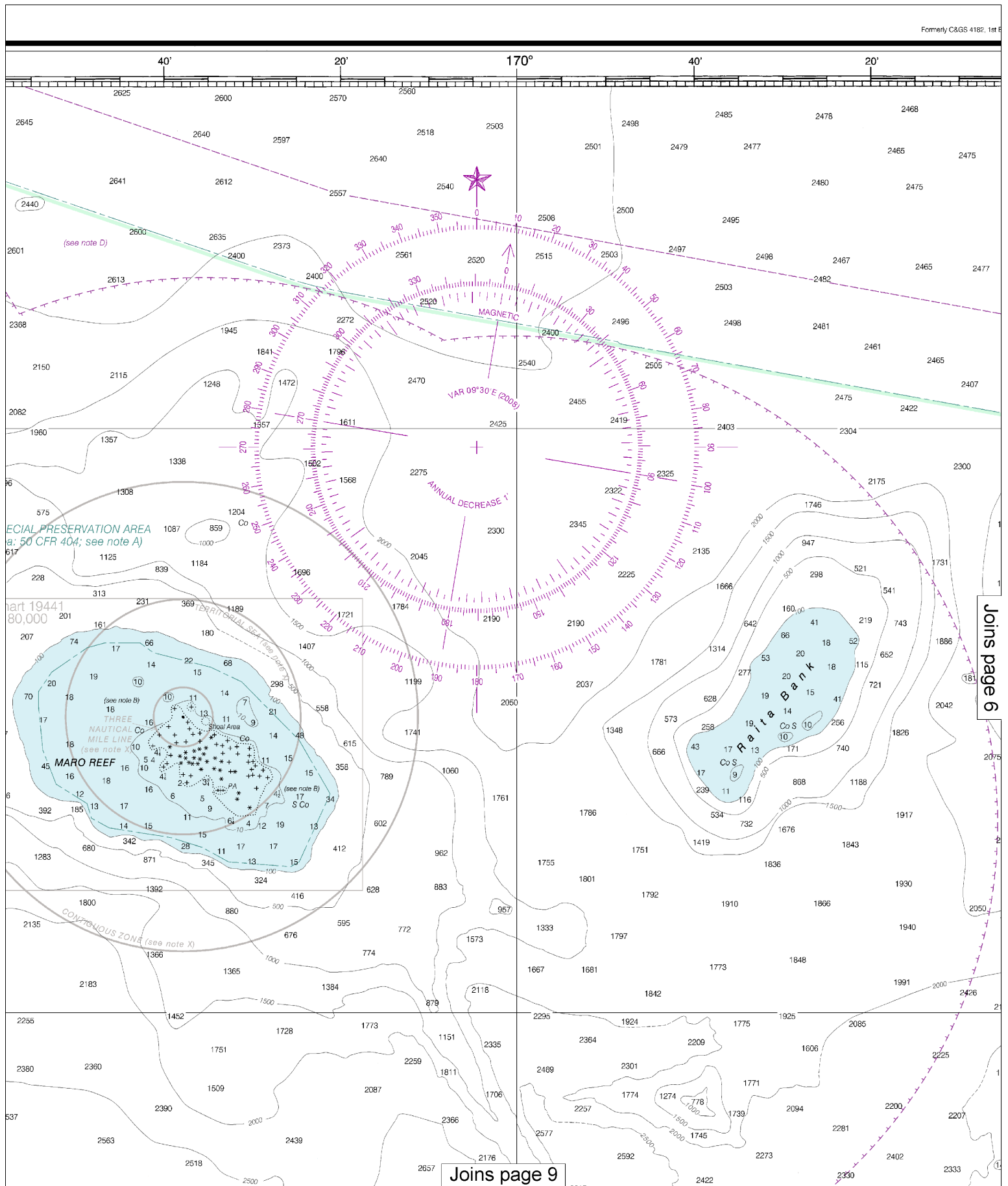


For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>



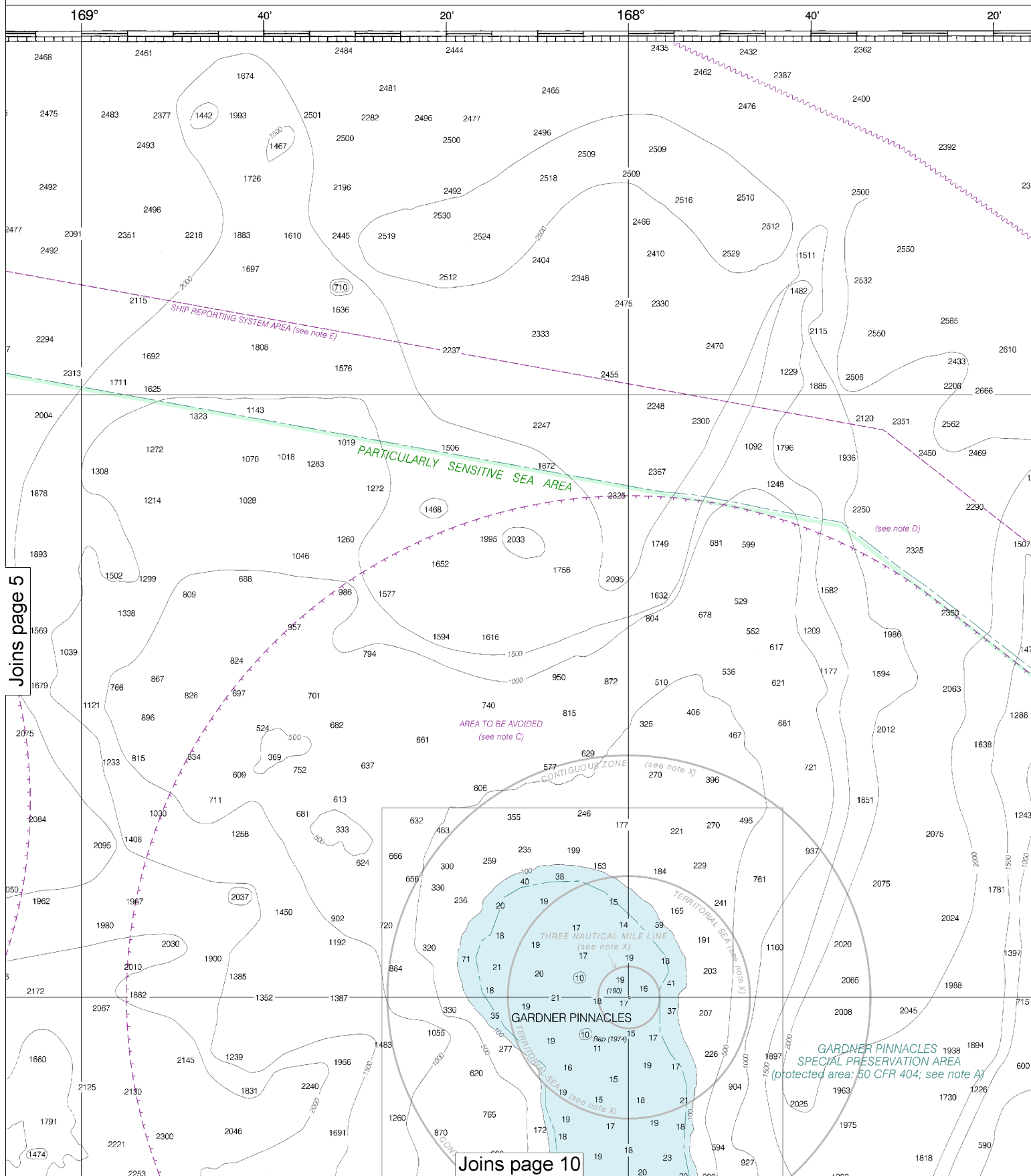
Joins page 8



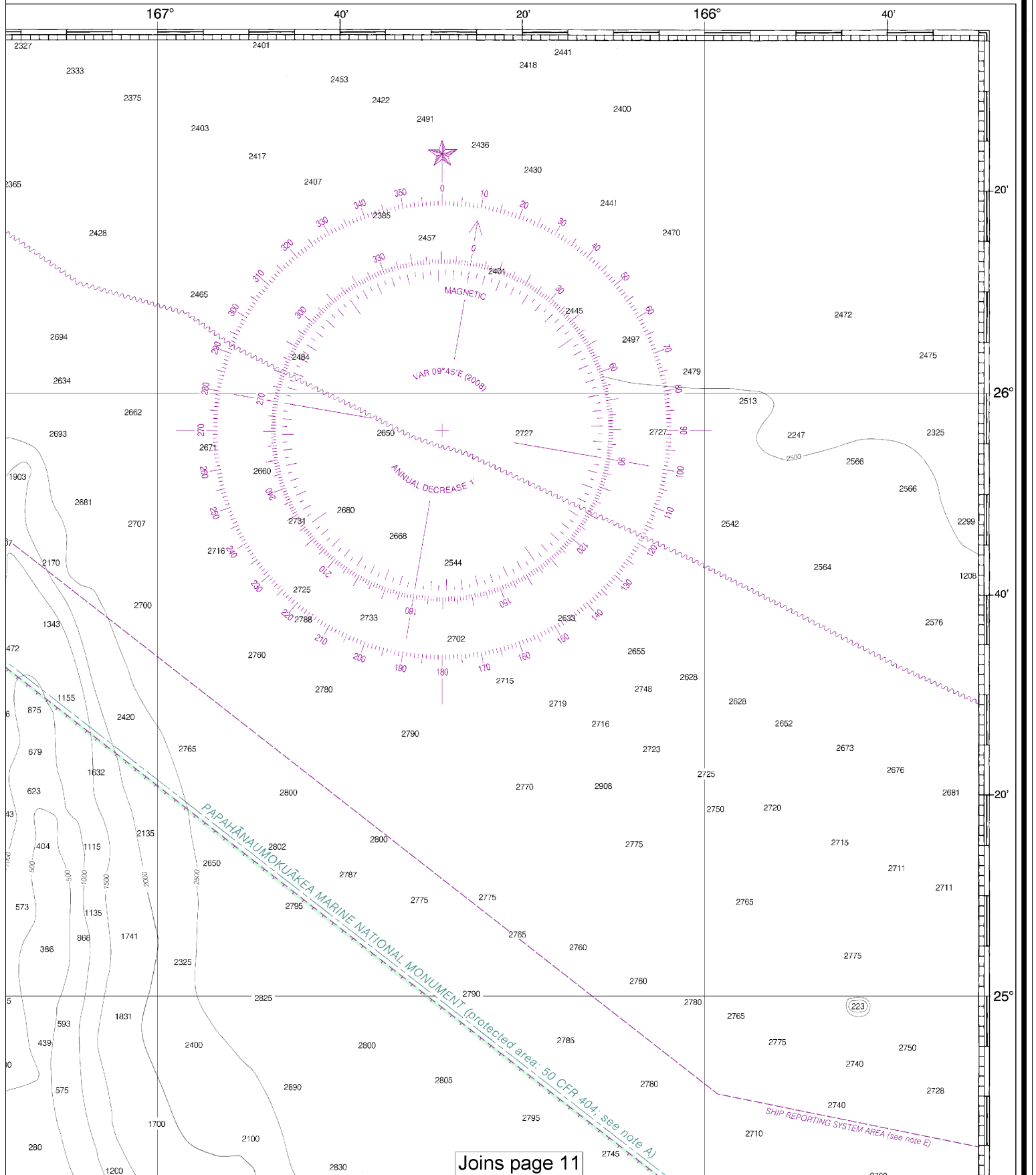
Joins page 6

Joins page 9

This BookletChart was reduced to 70% of the original chart scale.
 The new scale is 1:933170. Barscales have also been reduced and
 are accurate when used to measure distances in this BookletChart.



SOUNDINGS IN FATHOMS



Joins page 11

11th Ed., Apr. 2008. Last Correction: 12/20/2013. Cleared through:
 LNM: 4916 (12/6/2016), NM: 5016 (12/10/2016)

Waters published after the date shown in the lower left-hand corner are available at:
nauticalcharts.noaa.gov

25°

40'

20'

24°

40'

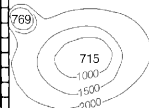
20'

PARTICULARLY SENSITIVE SEA AREA
The Particularly Sensitive Sea Area (PSSA) is indicated by a dashed green limiting line highlighted with a green screened band or by a green screened band used in conjunction with the line symbol for other limits with which the PSSA coincides. A PSSA is an environmentally sensitive area around which mariners should exercise extreme caution. See U.S. Coast Pilot volumes for information regarding this area.

NOTE C
AREA TO BE AVOIDED
All vessels solely in transit should avoid the area (MSC IMO SN.1/Circ.263).

NOTE D
The Areas to be Avoided and the Particularly Sensitive Sea Area have been charted in their true positions. The limits of the Papahānaumokuākea Marine National Monument have been slightly offset for clarity. The inner limit of the Ship Reporting System Area is co-linear with the outer limits of the Areas to be Avoided and is not depicted.

NOTE E
SHIP REPORTING SYSTEM
The following vessels entering or departing any U.S. port of place and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See IMO SN.1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, at the Office of the District Engineer, Corps of Engineers, in Honolulu.



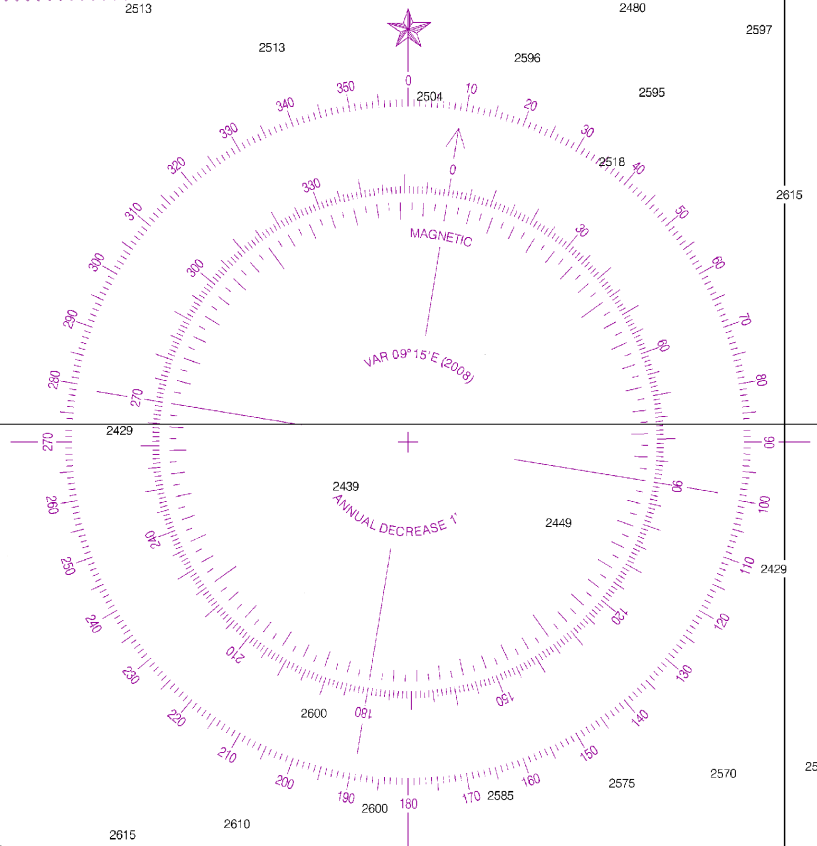
THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES

Joins page 12

PARTICULARLY SENSITIVE SEA AREA

SHIP REPORTING SYSTEM AREA (see note E)

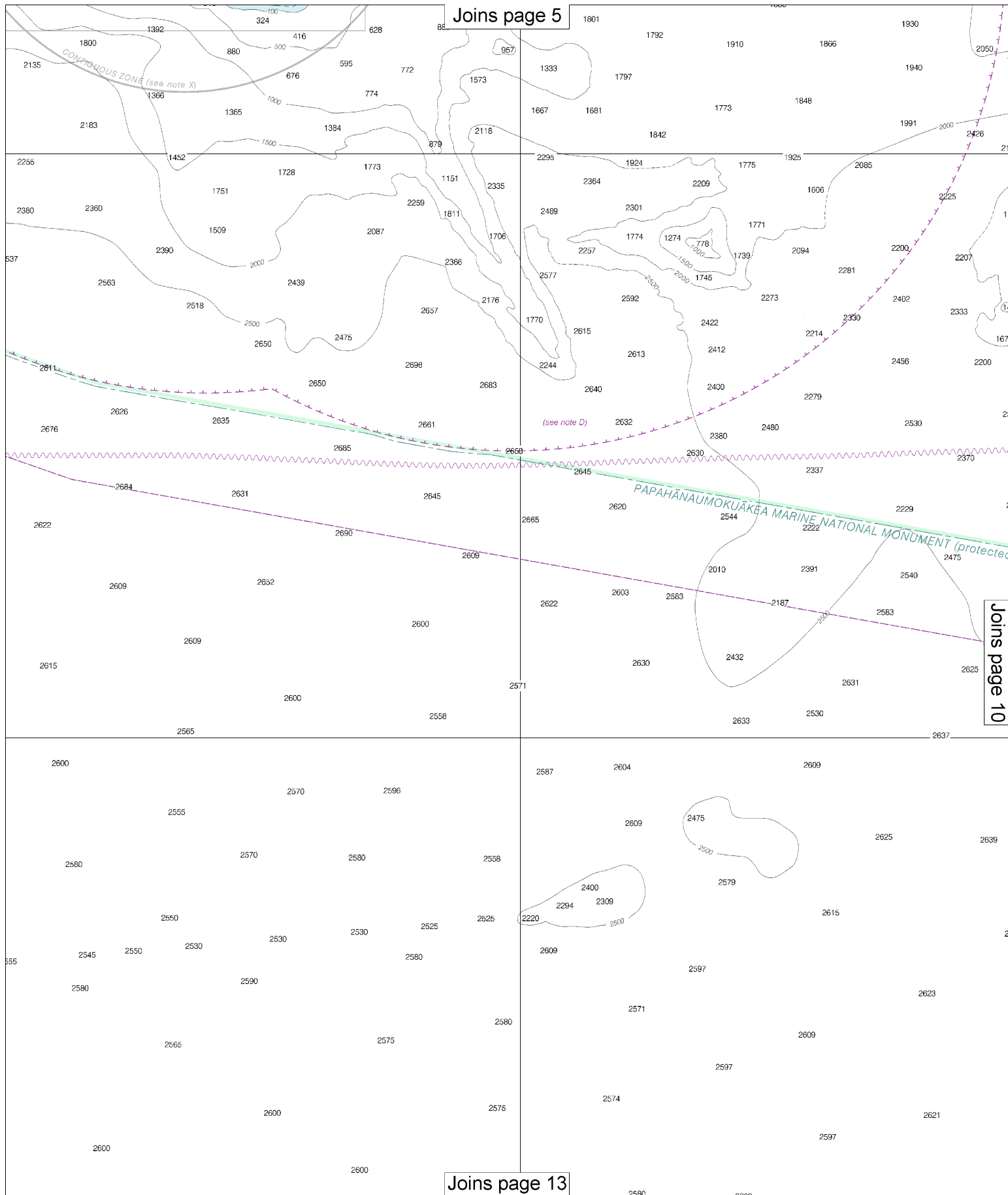


SOURCE DIAGRAM

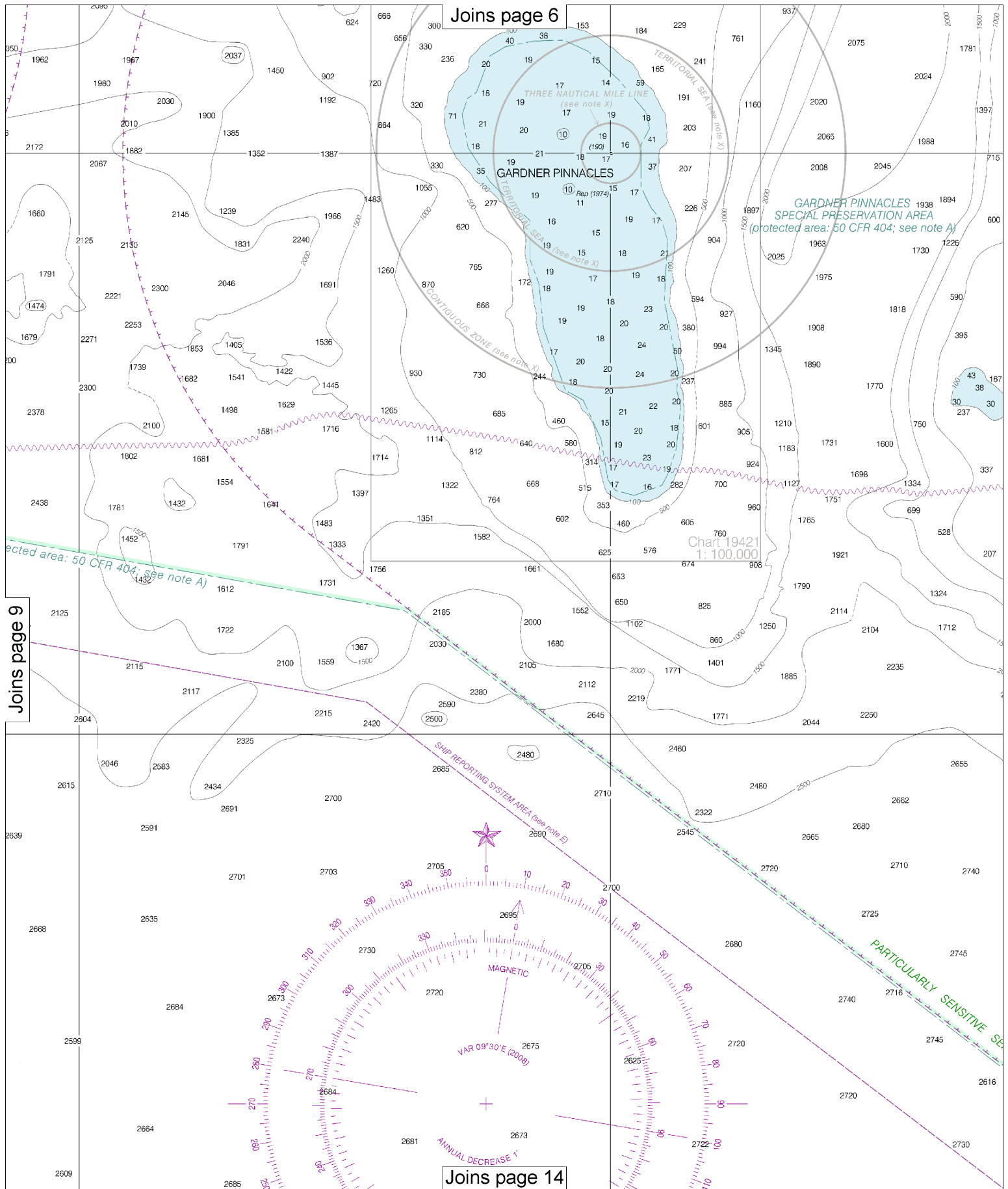
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE			
A	1990 - 2008	NOS Surveys	full bottom coverage
B4	1900 - 1939	NOS Surveys	partial bottom coverage
C	1990 - 2002	US Government Surveys	partial bottom coverage
h		Miscellaneous Surveys	

Joins page 5



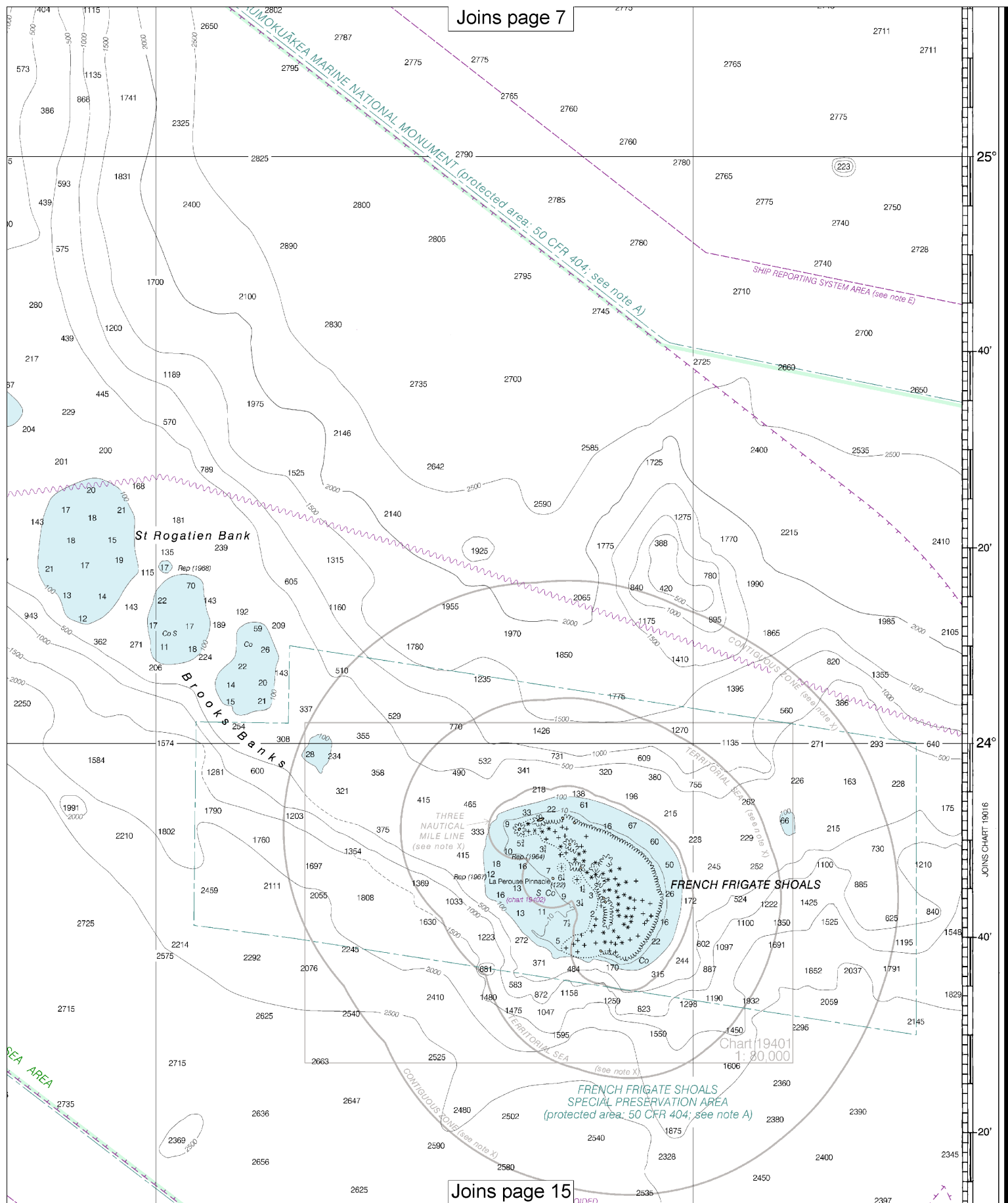
Joins page 13



10

Note: Chart grid lines are aligned with true north.

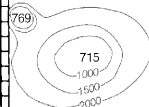
Joins page 7



Joins page 15

place and in transit through the reporting area are required to report into the System: all vessels 300 gross tons or greater and all vessels in the event of a developing emergency. The following vessels in transit through the reporting area should report into the System: all vessels 300 gross tons or greater, fishing vessels, and all vessels in the event of a developing emergency. See IMO SN.1, Circ. 273. Information concerning the Ship Reporting System is also published in the U.S. Coast Pilot 7, Chapters 2 and 14, and updated through Notices to Mariners. Information may also be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, at the Office of the District Engineer, Corps of Engineers, in Honolulu.

40°
20°
23°
40°
20°
22°



2210



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES
HAWAII

FRENCH FRIGATE SHOALS TO LAYSAN ISLAND

Mercator Projection
Scale 1:653,219 at Lat 25° 00'

Astronomic Datum
(Reference Horizontal Datum Note)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

For Symbols and Abbreviations see Chart No. 1

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

HAWAIIAN ISLANDS NATIONAL WILDLIFE REFUGE
The Hawaiian Islands from longitude 161° W to 176° W are part of the Hawaiian Islands National Wildlife Refuge, and under the jurisdiction of the U.S. Fish and Wildlife Service, Department of the Interior.
The islands and atolls in the refuge include Nihoa, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll. National Wildlife Refuge System regulations pertaining to these islands and atolls are contained in CFR 50, parts 25-32.
Entry to the refuge is strictly prohibited without prior approval from the Refuge Manager, Pacific Remote Islands National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, 300 Ala Moana Blvd., Honolulu, Hawaii 96850.
The restrictions apply to all civilian and military agencies as well as individuals.

HEIGHTS
Heights in feet above Mean High Water.

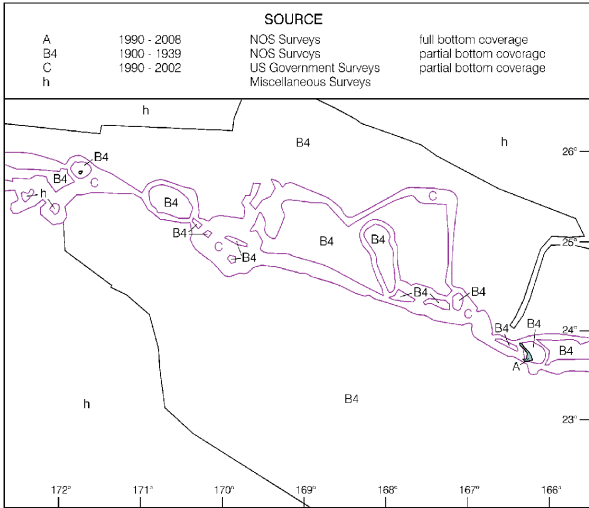
AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the U.S. Coast Guard, and the National Geospatial-Intelligence Agency.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).
COLREGS, 80.1410 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 14th Coast Guard District in Honolulu, Hawaii or at the Office of the District Engineer, Corps of Engineers in Honolulu, Hawaii.
Refer to charted regulation section numbers.

NOTE B
CAUTION
Much of Maro Reef is covered at all stages of tide. There are no highly visible objects by which a navigator can determine his position. Recent hydrographic surveys do not exist in this area. The hydrographic surveys used for this chart did not achieve full bottom coverage, thus uncharted coral heads may exist. Uncharted areas of submerged reef of unknown depth may exist. Extreme caution should be exercised when navigating in this area.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

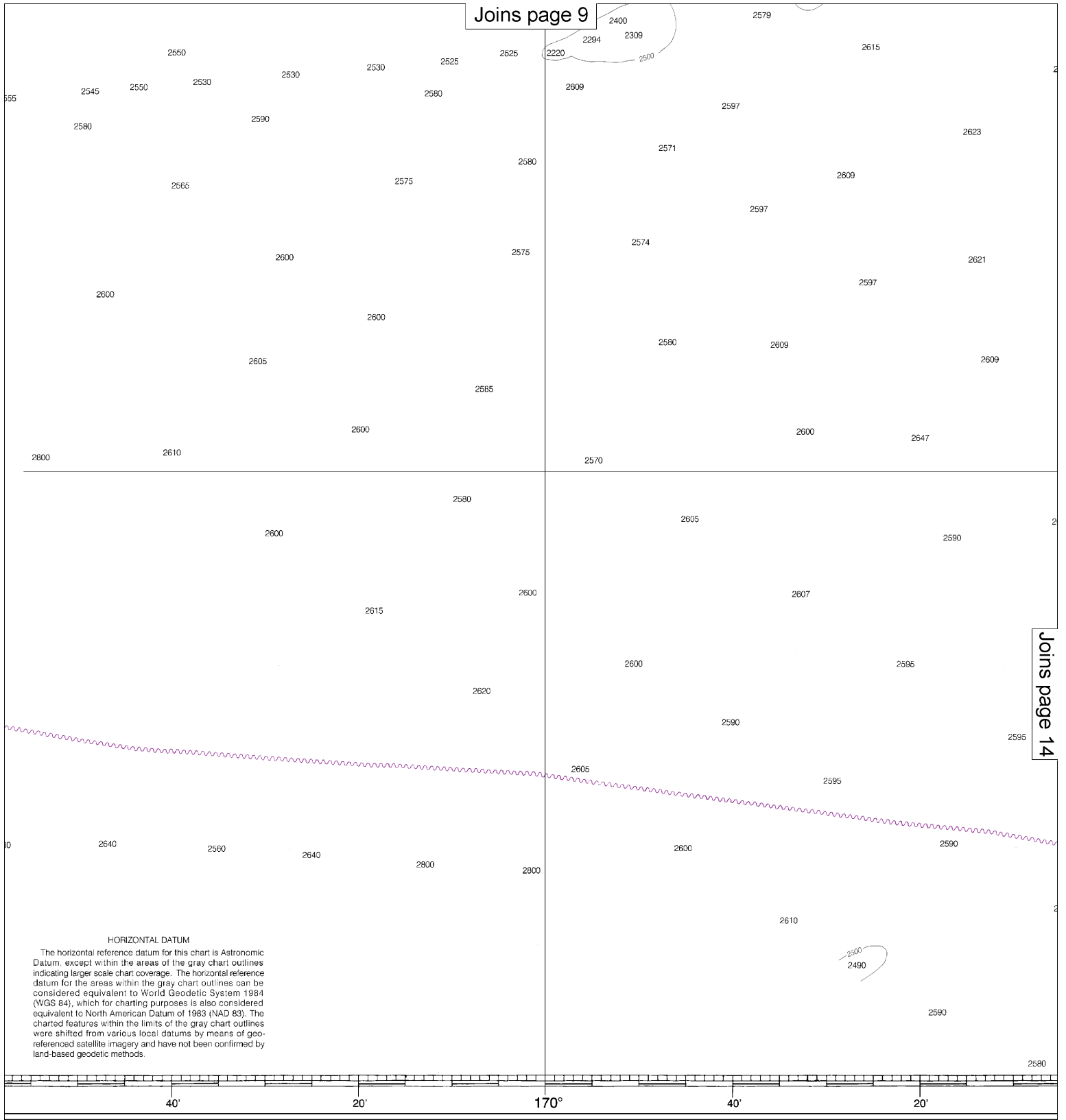
NOAA encourages users to submit inquiries about this chart at <http://www.nauticalcharts.noaa.gov>

19019

11th Ed., Apr. 2008. Last Correction: 12/20/2013. Cleared through:
LNM: 4916 (12/6/2016), NM: 5016 (12/10/2016)

12

Note: Chart grid lines are aligned with true north.



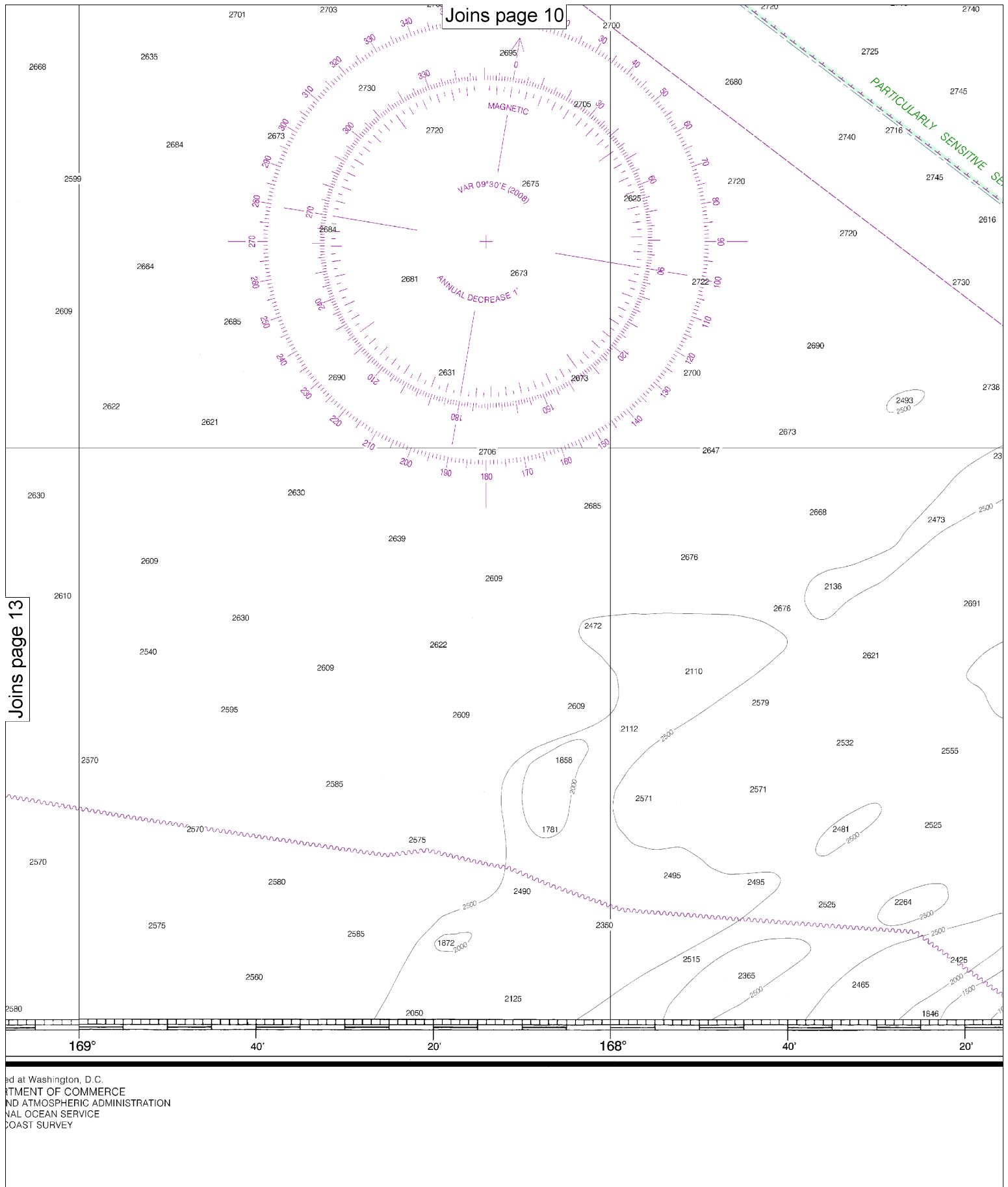
HORIZONTAL DATUM

The horizontal reference datum for this chart is Astronomic Datum, except within the areas of the gray chart outlines indicating larger scale chart coverage. The horizontal reference datum for the areas within the gray chart outlines can be considered equivalent to World Geodetic System 1984 (WGS 84), which for charting purposes is also considered equivalent to North American Datum of 1983 (NAD 83). The charted features within the limits of the gray chart outlines were shifted from various local datums by means of geo-referenced satellite imagery and have not been confirmed by land-based geodetic methods.

For more information, discrepancies or comments
noaa.gov/staff/contact.htm.

SOUNDINGS IN FATHOMS

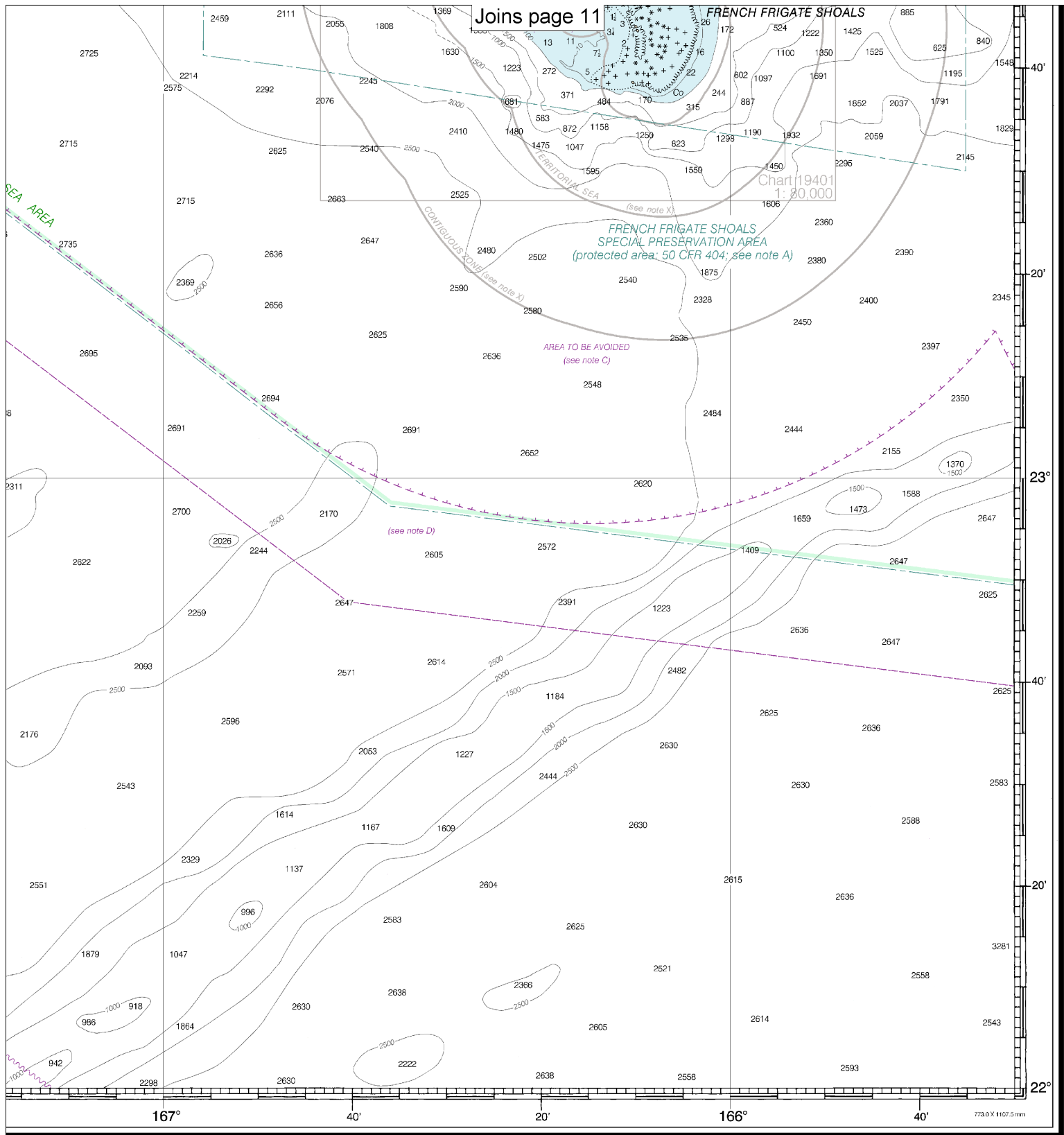
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Joins page 13

Joins page 10

ed at Washington, D.C.
 ITMENT OF COMMERCE
 ND ATMOSPHERIC ADMINISTRATION
 NAL OCEAN SERVICE
 COAST SURVEY



FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

French Frigate Shoals to Laysan Island
SOUNDINGS IN FATHOMS - SCALE 1:653,219

19019



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.